

Life-cycle costs approach for WASH services that last



Life-Cycle Costs in Ghana

Briefing Note 12: Ideal direct support costs
for WASH services

Dec. 2012

WASHCost project partners have developed a methodology for costing sustainable water, sanitation and hygiene (WASH) services by assessing life-cycle costs and comparing them against levels of service provided. The approach has been tested in Ghana, Burkina Faso, Mozambique and Andhra Pradesh (India). The aim of the life-cycle costs approach is to catalyse learning to improve the quality, targeting and cost effectiveness of service delivery.

In Ghana, Kwame Nkrumah University of Science and Technology (KNUST), International Water and Sanitation Centre (IRC), and Community Water and Sanitation Agency (CWSA) are using the WASHCost Life-Cycle Cost Approach to identify the true costs of providing sustainable Water, Sanitation and Hygiene costs in rural and peri-urban areas. This briefing note presents findings on cost drivers of capital investment of small towns piped water schemes and draws out the implications for policy and practice in Ghana's WASH sector.

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Front page photo

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WASHCost is a five year action research project investigating the cost of providing water, sanitation and hygiene services to rural and peri-urban communities in Ghana, Burkina-Faso, Mozambique and India (Andhra Pradesh). The objectives of collecting and disaggregating the cost data over the full life-cycle of WASH services are able to analyse cost per infrastructure and service level, and to better understand the cost drivers and through this understanding to enable more cost effective and equitable service delivery. WASHCost is focused on exploring and sharing an understanding of the true cost of sustainable services (see www.washcost.info).

Life cycle costs in Ghana:

Ideal direct support costs for WASH services

This briefing note, No. 12 is one of the WASHCost Ghana series that focuses on the realistic expenditure needed to be funded at the decentralised levels in the WASH sector to ensure sustainable services. The WASHCost project revealed inadequate expenditure on direct support at the decentralised level that is adversely affecting sustainable water service delivery. This series attempts to answer the question of how much will WASH service authority at the decentralised levels need to provide effective support services to local level service providers, users and others.

Introduction

In Ghana, the water and sanitation (WASH) sector has made progress over the last decade, but there are two main challenges requiring attention, which are increasing coverage and ensuring sustainable service delivery. The water ¹Millennium Development Goal has been achieved (86%) but the challenge is to ensure sustainability because of ²high rate of non functional systems. In the case of sanitation, the challenge relates to both coverage (currently at 14%) and sustainability. The sustainability challenge starts after the provision of WASH infrastructure where the need for operations and maintenance, and back stopping becomes important but is often neglected resulting in high rates of non-functional WASH systems.

One of the key cost components for achieving sustainable services at the decentralised level after infrastructure provision and project interventions is the direct support cost. This cost refers to expenditure for supporting local-level service providers, users or user groups. The salaries of service authority ³staff which form part of “direct support cost” is usually not a problem but staff does not have dedicated funds to execute key functions like monitoring, capacity building and back stopping of the community representative responsible for managing the rural water systems.

Meanwhile, the realistic cost of providing direct support for ensuring sustainable WASH services is not known. This briefing note uses a Life Cycle Cost Approach developed by WASHCost Project to determine the realistic direct support cost for providing sustainable service delivery in Ghana. The direct support cost is more applicable in the rural WASH sector. WASHCost Ghana team worked with the nine District Assemblies in three (3) regions of Ghana to determine the realistic budget for activities undertaken to ensure sustainable rural WASH services. nt development partners/donors (see Table 1 below).

Direct support cost

The ⁴LCCA cost components for sustainable service delivery are capital expenditure, operational and minor maintenance expenditure, capital maintenance expenditure, expenditure on direct support, expenditure on indirect support, and cost of capital. The capital expenditure and cost of capital focus on increasing coverage through infrastructure provision while the rest target sustaining services. The direct support cost is the expenditure on support to local-level service providers, users or user groups. The costs of ensuring that local government staff have the capacities and resources to carry out planning and monitoring, to help communities when systems break down, to audit community management structures, to monitor private sector performance, to carry out regular hygiene awareness raising and so on. Additional information on the cost components is available in the Briefing Note No. 1.

¹ WHO/UNICEF JMP Report: Progress on drinking water and sanitation 2012 update.

² WASHCost Ghana Briefing Note 6: functionality of water point systems;

³ Members of district water and sanitation team in addition to district planning and budget officers.

⁴ WASHCost Ghana Briefing Note 1: Background and methodology. August 2011.

Identifying and measuring ideal direct support

The approach used in the study involved data collection during LCCA training and budgeting exercises with the nine (9) district assemblies and also figures from the CWSA – WASHCost Technical Committee on Direct Support Cost (C-WTCDS). The nine districts are from three regions namely Brong Ahafo, Northern and Volta region. The data generated through detailed budgeting exercises was based on the question of “how much is realistically needed to ensure sustainable WASH services?” This was after 5 participants were taken through a two day LCCA training workshop. The C-WTCDS provided cost of audit visits to small town water systems for a district, CWSA regional level direct support cost and CWSA head office level direct support to regions which were not part of the district level data generation exercise. The cost data is analysed in terms of annual and per capita cost.

Results: magnitude of ideal direct support cost

The results show the key areas of direct support activities district teams are commonly involved. These activities are office work, training and capacity building, field work and spare parts supply excluding salaries which are paid outside the district budget by the central government.

Figure 1 below shows the magnitude of ideal district direct support cost.

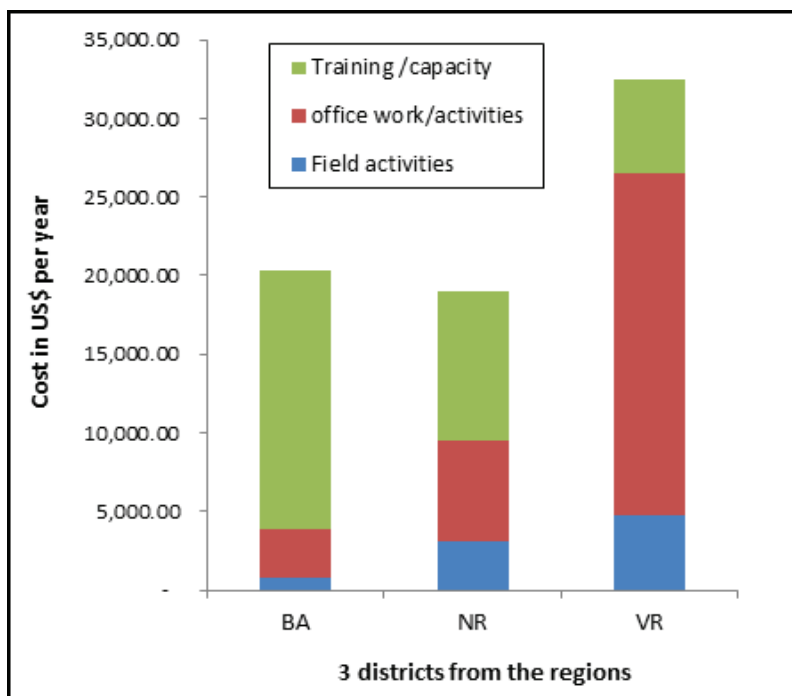


Figure 1: Annual direct support cost for districts per region

The average direct support cost of districts per region ranges from US\$ 18,000 to US\$ 32,000 per year. The significant cost components are the training/capacity building, and office activities. Districts from VR have the highest cost dominated by office activities which are mainly cost of vehicles and motor bikes. The districts from BA have the highest cost for training and capacity building with fuel cost as the highest cost component for pick-up vehicles whereas the other districts were using motor bikes.

In one of the districts in BA, the district procures spare parts and supplies to users or user groups. The direct support cost increases to US\$ 34,000 when the cost of the spare parts are included. The spare parts becomes necessary when districts do not get private business entity or private shops/stores in the locality to serve user groups because sales of parts may not be attractive. The community ownership and management concept does not support the procurement of spare parts by the district assemblies.

The direct support cost per capita excluding the spare parts supply component is shown in Figure 2 below.

⁵ Participants were district water and sanitation teams involving engineers, planning officers, budgeting officers etc

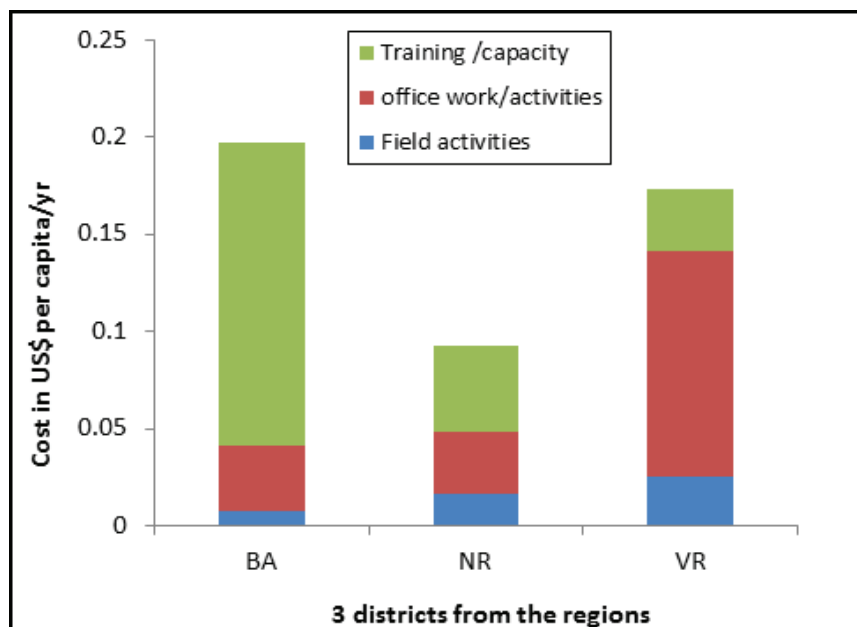


Figure 2: Ideal direct support cost per capita/yr

The per capita annual direct support cost ranges from US\$ 0.1 to US\$ 0.2. The least cost component is field activities or work with an average around US\$ 0.01 per capita/yr. This cost is mainly expenditure on fuel, lubricants, field gadgets and allowance for officers. Districts from VR have high field activities cost compared to the rest mainly due to high allowance and frequency of visits. Moreover, cost of field activities which covers monitoring and evaluation of WASH facilities, management systems and users groups is the least of all direct cost component from the study.

Additional support cost from the technical committee

The Table 1 below provides the extra direct support cost classes that were not considered at the district level budgeting exercises but were part of the CWSA-WASHCost Technical Committee on Direct Support findings.

Table 1: Additional direct support cost from the C-WTCDS

Direct support cost group	Amount GHC/yr
Audit visits to small town water systems (per district)	6,825
CWSA regional level cost (per region)	231,869
CWSA Head Office level cost (monitoring visits to all regions)	4,680

Source: Draft report of CWSA-WASHCost Technical Committee on Direct Support Cost, 2012

The annual cost for auditing small towns in each district is GHC 6,825 (⁶US\$ 4,840) which translates into a range from US\$ 0.02 to 0.05 per capita/yr for auditing small towns. This is based on an average of 5 small towns' water systems per district. Therefore the total amount need per person for field activities at the district level ranges between US\$ 0.04 and US\$ 0.06.

At the regional level, the total direct support cost from US\$ 0.14 to US\$ 0.16 per capita/yr while that of the head office support in terms of regional monitoring visits is US\$ 0.0003 per capita/yr, which is relatively small.

If the district support cost gathered for the nine districts are indicative of their respective regions, then the total direct support needed for decentralised WASH services delivery is around US\$ 23,000 per year (i.e US\$ 0.24 per cap/yr) for Northern region, US\$ 25,000 per year (i.e US\$ 0.35 per cap/yr) for Brong Ahafo region, and US\$ 37,000 per year (i.e US\$ 0.33 per cap/yr) for Volta region.

⁶ US\$ 1 is equivalent to GHC 1.41 as at 2011

Conclusions and policy implications

The direct support cost components identified from the study are office related activities, training and capacity building, and field work. The salary which is part of the direct support cost was not considered as it comes directly from the government. The cost of spare parts supply in cases when districts have no option but to supply the parts were included. Also there are disparities in the ideal direct support cost across districts. The ideal decentralised WASH direct support cost without the salary component could be as high as US\$ 37, 000 per year in absolute figure and also in terms of per capita cost around US\$ 0.35 per year.

The implications are that:

- Key to sustainable WASH service delivery is dedicated funds to cover at least the three key direct support cost components office based activities, training and capacity building and field activities (monitoring and evaluation).
- At the decentralised level, it will cost less than US\$ 1 per capita per year excluding salaries to ensure sustainable WASH service delivery. Planning, budgeting and making available at least US\$ 1 per capita per year (excluding salaries) could help solve the challenge of high rates of non functional WASH facilities and dormant management committees mostly link with inadequate monitoring and evaluation.

WASHCost briefing note series

Briefing notes relating to survey based work in Bosomtwe, Ketu South and East Gonja

Briefing note 1: Background and Methodology

Briefing note 2: Post-construction costs of water point-systems

Briefing note 3: Costs of rural and small town sanitation services

Briefing note 4: Access to services in rural areas and small towns

Briefing note 5: Access to sanitation services

Briefing note 6: Functionality of rural water point-systems

Briefing note 7: Poverty and access to services

Briefing note 8: Uses and sources of water in rural areas

Briefing notes from desk or case study based work:

Briefing note 9: Case study of twelve small towns in the Central Region

Briefing note 10: Case study of Oyibi multi-village scheme

Briefing note 11: Cost drivers capital investment in small-town pipe schemes

Briefing note 12: Direct support costs to rural WASH service provision

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